

WHAT IS CLAIMED IS:

1. A detachable keyboard structure, for detaching a keyboard from a main body, comprising:

a first magnetic component, having a first north (N) magnetic pole and a first south (S) magnetic pole, and the first magnetic component disposed at the keyboard;

a second magnetic component, having a second north (N) magnetic pole and a second south (S) magnetic pole, and the second magnetic component disposed at the main body, wherein the first N and S magnetic poles are opposite the second N and S magnetic poles, so that the first and the second magnetic components produce magnetization due to the opposite magnetisms thereof for attracting the keyboard to the main body; and

a movable component, capable of reversing the magnetic relationship between the first magnetic component and the second magnetic component, wherein the first and the second magnetic components repel each other due to the same magnetic polarity thereof and the keyboard detaches from the main body.

2. The detachable keyboard structure according to claim 1, wherein the movable component comprises:

a carrier, having a receiving aperture;

a movable part, connected to the carrier for moving the carrier; and

an elastic portion, wherein one end of the elastic portion is coupled with the carrier, and the shifted carrier is moved back to an original position as pressure on the elastic portion is released.

3. The detachable keyboard structure according to claim 2, wherein the movable component is disposed on the keyboard, and the receiving aperture is used for accepting the first magnetic component.

4. The detachable keyboard structure according to claim 2, wherein the movable component is disposed on the main body, and the receiving aperture accepts the second magnetic component.

5. The detachable keyboard structure according to claim 2, wherein the movable component is a shifting type movable component.

6. The detachable keyboard structure according to claim 5 further comprises a slide rail disposed on the main body for directing the movement of the carrier.

7. The detachable keyboard structure according to claim 6, wherein the elastic portion is a spring.

8. The detachable keyboard structure according to claim 7, wherein the movable part comprises a movable arm and a push arm.

9. The detachable keyboard structure according to claim 8, wherein the carrier has a diagonal slot for removably engaging with the push arm so that, when the movable arm is forced to move, the push arm moves along the diagonal slot and therefore pushes the carrier.

10. The detachable keyboard structure according to claim 2, wherein the movable component is a rotating type movable component.

11. The detachable keyboard structure according to claim 10, wherein the movable component further comprises a pivot portion that is coaxially coupled with the carrier.

12. The detachable keyboard structure according to claim 11, wherein the movable part is a rotating arm to rotate the carrier over the pivot portion.

13. The detachable keyboard structure according to claim 12, wherein the elastic portion is a spring coil disposed between the carrier and the pivot portion, with one end of the spring coil connected to the carrier and the other end connected to the pivot portion.

14. A computer with a detachable keyboard, comprising:  
a main body;  
a keyboard, removably attached to the main body;  
a magnetic switch, for detaching the keyboard from the main body or attaching the keyboard to the main body, comprising:

a first magnetic component disposed at the keyboard, having a first north (N) magnetic pole and a first south (S) magnetic pole;

a second magnetic component disposed at the main body, having a second north (N) magnetic pole and a second south (S) magnetic pole, , wherein the first N and S magnetic

poles are opposite to the second N and S magnetic poles, so that the first and the second magnetic components produce magnetization due to the opposite polarities thereof thus attracting the keyboard to the main body; and

a movable component, capable of reversing the magnetic relationship between the first magnetic component and the second magnetic components, wherein the first and the second magnetic components repel each other due to the same magnetic polarities thereof thus detaching the keyboard from the main body when the moveable component is forced to move; and

a locking system, for securing a bottom surface of the keyboard to a top surface of the main body.

15. The computer according to claim 14, wherein the locking system comprises:  
a pair of magnets correspondingly disposed on the bottom surface of the keyboard and the top surface of the main body.

16. The computer according to claim 14, wherein the locking system comprises:  
a magnet, disposed on the top surface of the main body; and  
a metallic layer, disposed on the bottom surface of the keyboard, wherein the keyboard is secured to the main body by a magnetic attraction between the magnet and the metallic layer.

17. The computer according to claim 14, wherein the locking system comprises:  
a magnet, disposed on the bottom surface of the keyboard; and  
a metallic layer, disposed on the top surface of the main body, wherein the keyboard is secured to the main body by magnetic attraction between the magnet and the metallic layer.

18. The computer according to claim 14, wherein the locking system comprises:  
a latch, positioned at a front edge of the keyboard; and  
a latch mating element, positioned at the main body and corresponding to the position of the latch.

19. The computer according to claim 14, wherein the movable component comprises:  
a carrier, having a receiving aperture;  
a movable part for moving the carrier that is connected to the carrier; and  
the carrier, coupled with an elastic portion at one end, which is able to return to its original position when pressure on the elastic portion is released.

20. The computer according to claim 19, wherein the movable component is disposed at the keyboard, and the receiving aperture accepts the first magnetic component.

21. The computer according to claim 19, wherein the movable component is disposed at the main body, and the receiving aperture accepts the second magnetic component.

22. The computer according to claim 19, wherein the movable component is a shifting type movable component.

23. The computer according to claim 22, wherein a slide rail is further disposed within the main body for directing the lateral movement of the carrier.

24. The computer according to claim 23, wherein the elastic portion is a spring that is disposed on the slide rail.

25. The computer according to claim 24, wherein the movable part has a movable arm and a push arm.

26. The computer according to claim 25, wherein the carrier has a diagonal slot for movably mating with the push arm, so that, when the movable arm swings, the push arm is moved along the diagonal slot to drive the carrier.

27. The computer according to claim 19, wherein the movable component is a rotating type movable component.

28. The computer according to claim 27, wherein the movable component has a pivot portion coaxially coupled with the carrier.

29. The computer according to claim 28, wherein the movable part is configured as a rotating arm for driving the carrier to coaxially rotate the pivot portion.

30. The computer according to claim 29, wherein the elastic portion is a spring coil disposed between the carrier and the pivot portion, with one end of the spring coil connected to the carrier and the other end connected to the pivot portion.

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